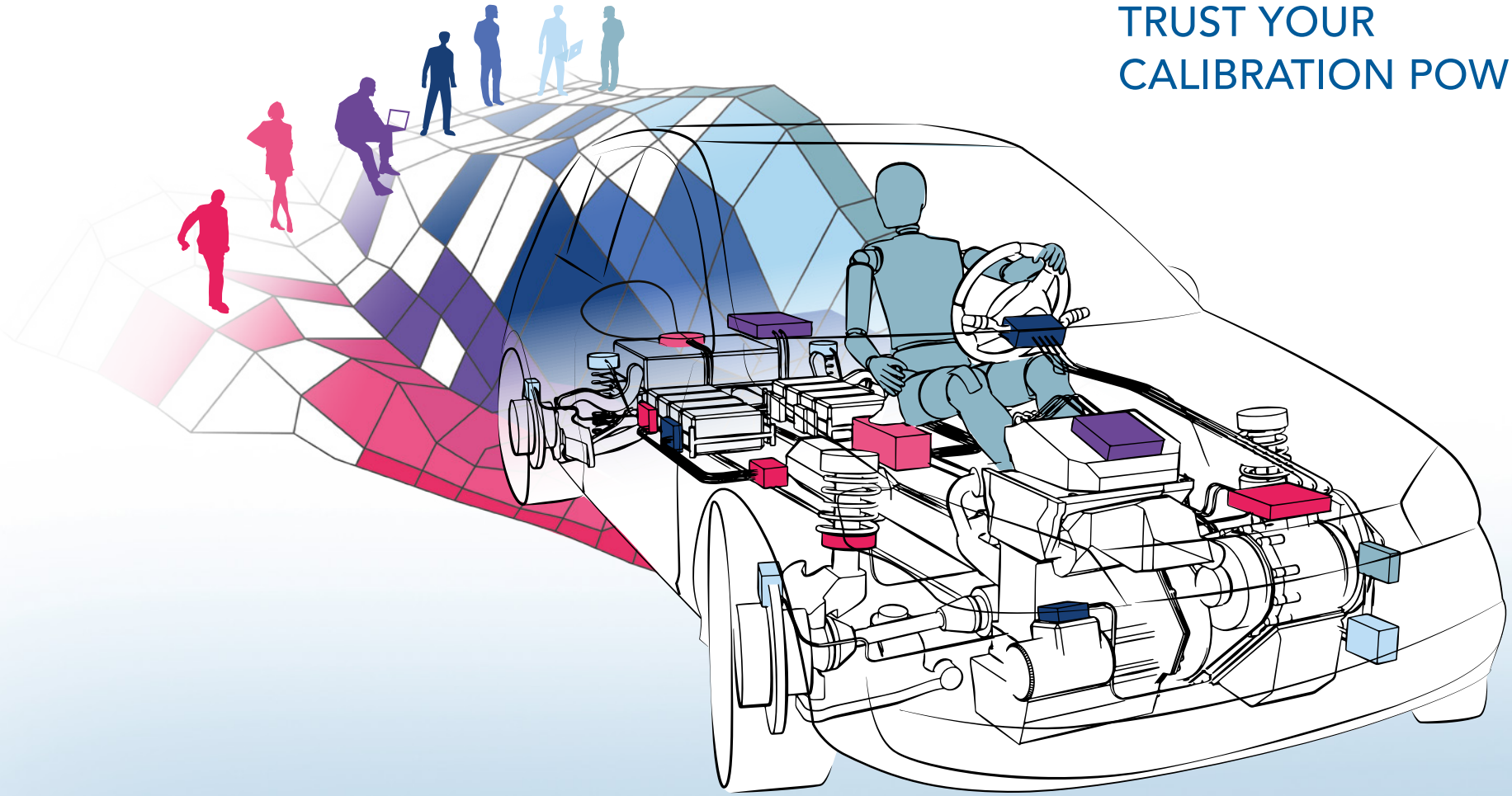
AVL CRETA™

Setting the Standard in Calibration Lifecycle Management

AVL



TRUST YOUR
CALIBRATION POWER

Calibration Lifecycle Management

MARKET REQUIREMENTS

Complexity of Calibration Tasks

With an increased number of mechatronic systems in today's vehicles a rising complexity of engine, transmission and hybrid control functions is inevitable. Moreover, with non-powertrain related calibration for steering, suspension and ADAS-Systems, the number of labels to be calibrated for a single vehicle has increased drastically within the past 5 years. This large amount of parameters and the many dependencies add a new level of complexity to modern calibration projects and generate the need for new methods to maintain a clear overview and enhance standardization where possible.

Large Number of Vehicle Variants

With an increasingly large number of vehicle variants to be released, the need for standardized checks has become even more imminent. Data-reuse and efficient know-how management can greatly ease the work-load, however, the risk of errors in largely distributed calibrations spreading across an entire vehicle fleet needs to be minimized as far as possible. As a result, standardized methods for storing, error-proofing and documenting calibration results are required prior to the actual implementation of the parameters into series production.

Efficient Calibration Data Management

A further factor adding to complexity is the fact that in today's globalized world calibration teams are rarely located at one single site. Worldwide distributed calibration teams, frequent test trips and collaborations with several partners and suppliers drive the need for round-the-clock, fast and secure access to calibration data and all related information.

In mastering these challenges while simultaneously meeting the demand to cut down overall development costs and maintain high quality, the potential provided by simple and secure means of data management is huge.

BENEFITS AT A GLANCE

- Traceable, secure and simple administration and documentation of control unit data
- Worldwide collaboration and data exchange between team members, partners, suppliers and customers
- Quick pre-calibration of initial datasets and re-use of data
- Plausibility check of datasets using data-mining algorithms
- Easy project- and quality monitoring through integrated reporting mechanisms

AVL CRETA™ – Trust your Calibration Power

AVL APPROACH

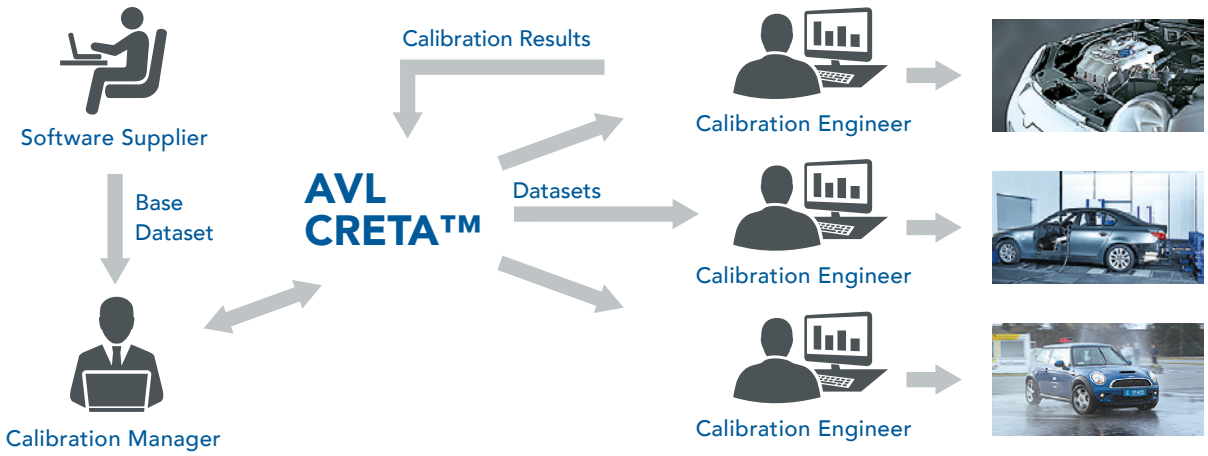
Complexity of Calibration Tasks

AVL CRETA™ enables simple handling of calibration data during the entire vehicle development process and ensures conflict-free and traceable integration of xCU parameters throughout the entire calibration project. Clearly assigned parameter responsibilities and work packages provide a clear overview of labels and avoid conflicts when merging calibration data from different sources, thus ensuring consistent results. Simple methods for comparisons of current to reference label values allow to easily trace changes. HTML and EXCEL based reports on the entire history of calibration and software changes can be created with a minimum of clicks.

Large Number of Vehicle Variants

The clearly structured AVL CRETA™ Explorer allows users to easily navigate through manifold calibration variants, displaying only relevant information by the use of interactive filters. Delta variants help to reduce the effort for variant management to a minimum, while Drop-Boxes and Delivery Templates greatly ease and secure the delivery of calibration results to the correct variants. Calibrations from the AVL CRETA™ Component Library or former projects retrieved through powerful search functions can be used for pre-calibration and guarantee high efficiency in daily calibration work. Integrated tasks for merging data, handling software changes and data exchange greatly support users in handling large calibration projects.

AVL CRETA™ APPLICATION PROCESS EXAMPLE



AVL CRETA™ helps meeting today's challenges in calibration projects while reducing data management costs by more than 50 percent and is characterized as a highly intuitive and easy-to-use software with a strong focus on the application.

Efficient Calibration Data Management

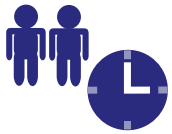
A common data repository forms the backbone of AVL CRETA™ and helps globally distributed calibration teams to share project relevant information easily and to ensure a smooth collaboration with partners. Engineers deliver, document and check their results by using AVL CRETA™, metadata like score and status information as well as file based attachments are stored in the database. Advanced data-mining algorithms improve the robustness of delivered calibrations by detecting potential errors through the AVL CRETA™ Delivery Guard already at data import and without additional user interaction. With progressive data-mining functionalities AVL CRETA™ enables users to meet the future standards for efficient and standardized integrity checks of calibration results.

Product Functions

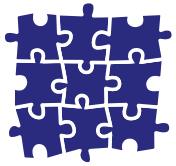
AVL CRETA™ features the following functionalities to support and improve the entire calibration process and calibration lifecycle management:

Process Workflow Support
Support your calibration process by reducing time for every step of your workflow

Collaboration
Work together with colleagues, partners and customers from anywhere with alerts, notifications & team information



Responsibility Management
Secure the complete process and eliminate overlapping work



Conflict Free Data Merging
Secure and simple creation of calibration data integration

Traceability & Versioning
What, When and Why of the complete history

Reporting and Documentation
Simple creation and reuse of reports help to save time

Project Status Control
Get the status of any calibration task and check if your project is on track

Know How
Re-use your calibration know-how efficiently

Qualitative Metrics
Analyze the quality and process regarding the biggest potential for optimization

Extensibility
Open and pre-defined API's enable you to connect to in-house systems and tools

YOUR BENEFITS

AVL CRETA™ lets you calibrate smoothly, with your hands free for the real tasks ahead, without having to worry about the integrity of your calibration data.

Technical Details

Data Storage	Central SQL or Oracle Database
Operating System	MS Windows 7, 32 or 64 bit
Standards applied	ASAM ASAP 2, CMMI3
File Formats	A2L, SET, ROB, HEX, S-Records (S19, S3, S24, …), DCM, CVX, PaCo, CDF 2.0, PAR, BIT, VST, M-Files, CSV
Interfaces	MS Project, MS Excel, XML, HTML, INCA, Canape, ATI Vision, API

AVL CRETA™ Features

Scope of supply	Additional support on request	Optional software extensions
AVL CRETA™ Software and Licenses	Definition of customer-specific attributes and user groups	AVL CRETA™ Component Library
Documentation and training	Creation of customer-specific reports	AVL CRETA™ Parameter Editor
Installation and commissioning	Consulting and rollout support	AVL CRETA™ Web Client
Software maintenance, subscription & support	Integration and/or interfaces to existing IT environments	AVL CRETA™ Project Monitoring
		AVL CRETA™ Site Proxy Services
		AVL CRETA™ Partnership Solution
		AVL CRETA™ Compare PRO

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